

North Dakota Agriculture Education

Content Standards

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North Dakota Department of Career and Technical Education

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Career and Technical Education Standards Introduction

Mission

The mission of the State Board for Career and Technical Education (CTE) is to work with others to provide all North Dakota citizens with the technical skills, knowledge, and attitudes necessary for successful performance in a globally competitive workplace.

Vision

The State Board for Career and Technical Education (CTE) is committed to providing career awareness, work readiness skills, occupational preparation, and retraining of workers throughout the state. Career and technical education will span all educational levels, providing youth with exploration opportunities and the foundation skills needed to enter the world of work while providing adults with skills needed to enter, re-enter, or advance in the workforce.

Goal

North Dakota Career and Technical Education's goal is to create a competitive and knowledgeable work force. This is accomplished through a variety of educational program areas that are organized to prepare students for careers in their chosen fields, to take leadership roles, and balance their multiple roles in life. CTE programs prepare students with the knowledge and skills to make informed career choices, to integrate and apply academic concepts, to prepare for successful participation in a global society, and to engage in lifelong learning.

Standards Development Process

Standards development is a multi-phase process. Existing and/or industry standards are the basis for the North Dakota Program Standards. A team of expert secondary and postsecondary teachers, business and industry representatives, and the state program supervisor draft the standards document. Once the document is finalized, the State Board for Career and Technical Education approves and adopts the standards.

Course Frameworks are also developed by the writing team. A framework includes a brief overview of the course content, topical units of study, and identifies the standards recommended for inclusion within the course. The frameworks are tailored to prepare young people for the opportunities in North Dakota. School Districts will use the frameworks as a guide for developing curriculum that reflects local needs.

Key Principles of Career and Technical Education

We believe that Career Technical Education:

1. Draws its curricula, standards, and organizing principles from the workplace.

The workplace provides the context, objectives, and organizing constructs for instruction and assessment. The workplace also defines the standards of performance necessary, including those required for academic, technical, and employability skills.

2. Is a critical and integral component of the total educational system, offering career-oriented benefits for all students.

CTE classes offer educational benefits to students pursuing careers requiring specific technical skills as well as providing a strong foundation for those pursuing a traditional four-year (or more) degree.

3. Is a critical and integral component of the workforce development system, providing the essential foundation for a thriving economy.

Preparation of a well-prepared, qualified workforce requires solid academics, good work ethics, and specific technical skills as well as the ability to communicate, work with others, solve problems, and use information. CTE contributes directly to this preparation by providing a curriculum tied to specific workplace requirements.

4. Maintains high levels of excellence supported through identification of academic and workplace standards, measurement of performance (accountability), and high expectations for participant success.

Career Technical Education is committed to continuous improvement, attention to industry certification, and the development of highly qualified teachers.

5. Is robust and flexible enough to respond to the needs of the multiple educational environments, customers, and levels of specialization.

CTE involves a large and complex delivery system that (1) integrates career exploration, (2) provides effective tools for organizing all curricula, (3) facilitates the teaching and use of technology, (4) is integrated into the total learning experience, (5) enhances the learning of academic subjects, (6) teaches broad occupational skills, (7) includes all aspects of the industry, (8) teaches how to balance family and work responsibilities, (9) provides job-specific training, (10) is offered at multiple levels of the educational continuum, and (11) is delivered through a variety of educational environments.

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Agriculture, Food, & Natural Resources Career Cluster

CCTC AG 1	Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food, & Natural Resources Career Cluster.
	Student Competencies
AG 1.1	Explain how regulations and major laws impact management of AFNR activities.
AG 1.2	Describe current issues impacting AFNR activities.
AG 1.3	Identify, organize alternatives, and evaluate public policy issues related to AFNR.
AG 1.4	Consider public input in decision-making for AFNR activities.
AG 1.5	Explain the impact of sustainability on AFNR activities and practices.
AG 1.6	Recognize the historical, social, cultural, and potential applications of biotechnology on AFNR activities.
AG 1.7	Demonstrate the application of biotechnology to AFNR activities.
CCTC AG 2	Evaluate the nature and scope of the Agriculture, Food, & Natural Resources Career Cluster and the role agriculture, food, and natural resources (AFNR) play in society and the economy.
	Student Competencies
AG 2.1	Examine company performance goals within AFNR organizations and the AFNR industry.
AG 2.2	Examine the role of AFNR in global, national, and regional economies.
AG 2.3	Explain the types of industries, organizations, and activities part of AFNR.
AG 2.4	Explain the influence of AFNR on society.

CCTC AG 3	Examine and summarize the importance of health, safety, and environmental management systems in AFNR businesses.
	Student Competencies
AG 3.1	Examine health risks associated with a particular skill to better form personnel safety guidelines.
AG 3.2	Develop response plans to handle emergencies.
AG 3.3	Identify hazards and acquire first aid skills to promote environmental safety.
AG 3.4	Examine required regulations to maintain/improve safety, health, and environmental management systems and sustainable business practices.
CCTC AG 4	Demonstrate stewardship of natural resources in AFNR activities.
	Student Competencies
AG 4.1	Demonstrate evidence of interest and concern for natural resource stewardship.
AG 4.2	Explain the environmental considerations of decision making in AFNR management.
CCTC AG 5	Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food, & Natural Resources Career Pathways.
	Student Competencies
AG 5.1	Locate and identify career opportunities that appeal to personal career goals.
AG 5.2	Match personal interest and aptitudes to selected careers.
CCTC AG 6	Analyze the interaction among AFNR systems in the production, processing, and management of food, fiber, and fuel and the sustainable use of natural resources.
	Student Competencies
AG 6.1	Explain foundational cycles and systems of AFNR.
AG 6.2	Explain the interconnectedness of systems within AFNR.

Agribusiness Systems Pathway	
AG-BIZ 1	Apply management planning principles in AFNR business enterprises.
	Student Competencies
AG-BIZ 1.1	Develop a mission statement and related goals and objectives to guide business activities.
AG-BIZ 1.2	Apply management skills to organize an AFNR enterprise or business unit.
AG-BIZ 2	Use record keeping to accomplish AFNR business objectives, manage budgets, and comply with laws and regulations.
	Student Competencies
AG-BIZ 2.1	Employ fundamental accounting principles in business bookkeeping and associated financial files.
AG-BIZ 2.2	Prepare and maintain all files as needed for effective record keeping practices.
AG-BIZ 3	Manage cash budgets, credit budgets, and credit for an AFNR business using generally accepted accounting principles.
	Student Competencies
AG-BIZ 3.1	Employ fundamental accounting principles in business bookkeeping and associated financial files.
AG-BIZ 4	Develop a business plan for an AFNR enterprise or business unit.
	Student Competencies
AG-BIZ 4.1	Identify strategies to manage or mitigate risk.
AG-BIZ 4.2	Develop business goals and strategies that capitalize on opportunities in an AFNR market.
AG-BIZ 4.3	Develop an operation and/or production plan to provide required levels of product or service.
AG-BIZ 4.4	Analyze the strengths, weaknesses, opportunities, and threats to an AFNR enterprise or business unit.

AG-BIZ 5	Use sales and marketing principles common to agribusiness systems to accomplish AFNR business objectives.
	Student Competencies
AG-BIZ 5.1	Conduct market research.
AG-BIZ 5.2	Develop a marketing plan.
AG-BIZ 5.3	Implement a marketing plan.
AG-BIZ 5.4	Merchandise products and services.
AG-BIZ 5.5	Use selling strategies and practices to sell AFNR products and/or services.

Animal Systems Pathway	
AG-ANI 1	Analyze historic and current trends impacting the animal systems industry.
	Student Competencies
AG-ANI 1.1	Explain the variety and scope of managed animal systems in the United States and around the world including: livestock, poultry, aquaculture, companion animals, zoo animals, and exotic animals.
AG-ANI 1.2	Explain the historical development of animal systems around the world.
AG-ANI 1.3	Describe trends in the animal systems industry.
AG-ANI 1.4	Recognize the historical, social, cultural, and potential applications of biotechnology in the animal systems industry.
AG-ANI 2	Utilize best practice protocols for husbandry and welfare based upon animal behaviors.
	Student Competencies
AG-ANI 2.1	Develop a safety plan for working with a specific animal.
AG-ANI 3	Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.
	Student Competencies
AG-ANI 3.1	Examine animal developmental stages.
AG-ANI 3.2	Assess whether the nutritional requirements of a given animal are being met by recording performance and comparing feed variations.
AG-ANI 3.3	Design a nutritional plan for a given animal with a clearly stated outcome.
AG-ANI 4	Apply principles of animal reproduction given desired outcomes for performance, development, and/or economic production.
	Student Competencies
AG-ANI 4.1	Evaluate animals for breeding readiness and soundness.
AG-ANI 4.2	Apply scientific techniques in breeding of animals.
AG-ANI 4.3	Evaluate the male and female reproductive systems in a given animal species.

AG-ANI 5	Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
	Student Competencies
AG-ANI 5.1	Reduce or mitigate the environmental impacts of animal management or production.
AG-ANI 5.2	Describe the effects of environmental conditions on animals.
AG-ANI 6	Classify, evaluate, and select animals based on anatomical and physiological characteristics.
	Student Competencies
AG-ANI 6.1	Classify animals by hierarchical taxonomy and use.
AG-ANI 6.2	Describe basic functions of animal cells, organs, and systems.
AG-ANI 6.3	Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.
AG-ANI 6.4	Select animals for specific purposes and maximum performance based on anatomy and physiology.
AG-ANI 7	Apply principles of effective animal health care.
	Student Competencies
AG-ANI 7.1	Implement a prevention and treatment program for animal diseases, parasites, and other disorders for a given animal.
AG-ANI 7.2	Perform surgical and nonsurgical veterinary treatments and procedures.

Environmental Service Systems Pathway	
AG-ENV 1	Use analytic procedures and instruments to manage environmental systems activities.
	Student Competencies
AG-ENV 1.1	Monitor samples using a variety of instrumentation.
AG-ENV 1.2	Analyze and interpret results of sample measurements.
AG-ENV 1.3	Calibrate and service field equipment and instruments according to manufacturer's specifications.
AG-ENV 2	Evaluate the impact of public policies and regulations on environmental services facility operations.
	Student Competencies
AG-ENV 2.1	Identify the major laws impacting environmental services by consulting reliable resources or participating in trainings.
AG-ENV 3	Develop proposed solutions to environmental issues, problems, and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry, and ecology.
	Student Competencies
AG-ENV 3.1	Recognize weather systems and weather patterns using meteorological principles and knowledge.
AG-ENV 3.2	Describe soil compositions and properties to demonstrate knowledge of soil science.
AG-ENV 3.3	Explain well design and groundwater supplies using knowledge of hydrology.
AG-ENV 3.4	Use chemical analysis to conduct tests.
AG-ENV 3.5	Perform common microbiology procedures to examine cell types and conduct tests.
AG-ENV 3.6	Apply sampling techniques and other assessments using procedures and principles from the study of microbiology.
AG-ENV 3.7	Apply chemistry principles to environmental service systems.
AG-ENV 3.8	Discuss properties, classifications, functions, and principles for managing wetlands.
AG-ENV 3.9	Discuss properties, classifications, functions, and principles for managing watersheds.

AG-ENV 4	Demonstrate the operation of environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management, and energy conservation).
	Student Competencies
AG-ENV 4.1	Use pollution control measures to maintain a safe facility environment.
AG-ENV 4.2	Manage safe disposal of all categories of waste by applying principles of solid waste management (landfill operations).
AG-ENV 4.3	Apply drinking water treatment operation procedures and principles to assure safe water for a community.
AG-ENV 4.4	Manage wastewater treatment and disposal operations using principles for managing wastewater and complying with rules and regulations.
AG-ENV 4.5	Apply hazardous materials management principles to assure safe conditions and compliance with applicable regulations.
AG-ENV 4.6	Explain conventional and alternative energy sources.
AG-ENV 5	Use tools, equipment, machinery, and technology common to tasks in environmental system services.
	Student Competencies
AG-ENV 5.1	Create maps of land, facilities, and infrastructure using technological tools.
AG-ENV 5.2	Demonstrate use of survey and drafting equipment used in planning of tasks in environmental services.
AG-ENV 5.3	Identify common pumps, vehicles, and instruments used in planning tasks in environmental services.
AG-ENV 5.4	Install and maintain pumps and associated delivery systems.
AG-ENV 5.5	Demonstrate design principles related to hydraulic systems and high-flow technologies related to fluid movement.

Food Products & Processing Systems Pathway	
AG-FD 1	Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.
	Student Competencies
AG-FD 1.1	Implement Hazard Analysis and Critical Control Point (HACCP) procedures.
AG-FD 1.2	Develop operational procedures and maintenance plans for food processing equipment and facilities.
AG-FD 1.3	Employ safety and sanitation procedures for the handling, processing, and storage of food products.
AG-FD 2	Apply principles of nutrition, biology, microbiology, chemistry, and human behavior to development of food products.
	Student Competencies
AG-FD 2.1	Execute key processes related to food product development and enhancement.
AG-FD 2.2	Field-test a food product for consumer acceptance.
AG-FD 2.3	Analyze a food product to identify food constituents.
AG-FD 2.4	Determine the physical and chemical properties of a food product.
AG-FD 3	Select and process food products for storage, distribution, and consumption.
	Student Competencies
AG-FD 3.1	Evaluate and grade food products.
AG-FD 3.2	Process food products for sale and distribution.
AG-FD 3.3	Use harvesting, selection, and selection techniques to obtain quality food products for processing and distribution.
AG-FD 4	Explain the scope of the food industry and the historical and current developments of food products and processing.
	Student Competencies
AG-FD 4.1	Explain the participants and their relationships in the food industry.
AG-FD 4.2	Describe historical developments in food products and processing.
AG-FD 4.3	Explain the role of industry associations, governmental agencies, and other organizations in the food industry.
AG-FD 4.4	Recognize the historical, social, cultural, and potential applications of biotechnology on food products and processing.

Natural Resources Systems Pathway	
AG-NR 1	Plan and conduct natural resource management activities that apply logical, reasoned, and scientifically based solutions to natural resource issues and goals.
	Student Competencies
AG-NR 1.1	Recognize weather and other natural hazards related to working in an outdoor environment.
AG-NR 1.2	Apply cartographic skills to the planning, implementing, and evaluating natural resource activities.
AG-NR 1.3	Obtain and analyze data by monitoring natural resource status.
AG-NR 1.4	Explain the application of laws and regulations related to natural resource systems.
AG-NR 1.5	Execute natural resource strategies and activities applying scientific knowledge from the study of ecology and wildlife.
AG-NR 2	Analyze interrelationships between natural resources and humans needed to manage natural resource systems.
	Student Competencies
AG-NR 2.1	Examine natural resource topics using science concepts, processes, and research techniques.
AG-NR 2.2	Examine biological and physical characteristics to identify and classify natural resources.
AG-NR 2.3	Examine natural cycles and related phenomena to describe ecologic concepts and principles.
AG-NR 3	Develop plans to ensure responsible and sustainable production and processing of natural resources.
	Student Competencies
AG-NR 3.1	Plan for the production, harvesting, processing, and/or use of natural resources in a responsible and sustainable manner.
AG-NR 4	Demonstrate responsible control and management procedures and techniques to protect or maintain natural resources.
	Student Competencies
AG-NR 4.1	Employ techniques and equipment needed to manage and/or prevent fire.
AG-NR 4.2	Employ appropriate techniques to prevent the spread of animal and plant diseases affecting natural resource systems.
AG-NR 4.3	Manage invasive species infestations that threaten natural resource systems.

Plant Systems Pathway	
AG-PL 1	Develop and implement a crop management plan for a given production goal that accounts for environmental factors.
	Student Competencies
AG-PL 1.1	Develop a fertilization plan using the results of an analysis and evaluation of nutritional requirements and environmental conditions.
AG-PL 1.2	Evaluate soil/media nutrients using tests of appropriate materials and/or by examining data.
AG-PL 1.3	Determine the influence of environmental factors on plants.
AG-PL 1.4	Manage water conditions for plant growth.
AG-PL 1.5	Manage characteristics of growing media.
AG-PL 2	Apply the principles of classification, plant anatomy, and plant physiology to plant production and management.
	Student Competencies
AG-PL 2.1	Examine unique plant properties to identify/describe functional differences in plant structures including roots, stems, flowers, leaves, and fruit.
AG-PL 2.2	Classify plants based on physiology for taxonomic or other classifications.
AG-PL 2.3	Apply knowledge of plant anatomy and plant structures to plant systems activities.
AG-PL 2.4	Apply knowledge of plant physiology and energy conservation to plant systems activities.
AG-PL 3	Propagate, culture, and harvest plants and plant products based on current industry standards.
	Student Competencies
AG-PL 3.1	Develop a production plan that applies the fundamentals of plant management.
AG-PL 3.2	Harvest crops using methods that apply fundamentals of plant management.
AG-PL 3.3	Handle crops using methods that apply fundamentals of plant management.
AG-PL 3.4	Store crops using methods that apply fundamentals of plant management.
AG-PL 3.5	Produce crops using a plant management plan.
AG-PL 3.6	Develop and implement an integrated pest management plan.
AG-PL 3.7	Demonstrate plant propagation techniques.
AG-PL 3.8	Apply principles and practices of sustainable agriculture to plant production.
AG-PL 3.9	Demonstrate the application of biotechnology to plant production.

AG-PL 4	Apply principles of design in plant systems to enhance an environment (e.g., floral, forest, landscape, and farm).
	Student Competencies
AG-PL 4.1	Create a design using plants that demonstrates an application of basic design elements and principles.

Power, Structural, and Technical Systems Pathway	
AG-PST 1	Apply physical science principles and engineering applications related to mechanical equipment, structures, and biological systems to solve problems and improve performance in AFNR powers, structural, and technical systems.
	Student Competencies
AG-PST 1.1	Select energy sources for power generation.
AG-PST 1.2	Use hand and power tools commonly required in power, structural, and technical systems.
AG-PST 1.3	Investigate solutions to AFNR power, structural, and technical systems.
AG-PST 1.4	Design or modify equipment, structures, or biological systems to improve performance of an AFNR enterprise or business unit.
AG-PST 2	Operate and maintain mechanical equipment related to AFNR power, structural, and technical systems.
	Student Competencies
AG-PST 2.1	Maintain machinery and equipment by performing scheduled service routines.
AG-PST 2.2	Perform service routines to maintain power units and equipment.
AG-PST 2.3	Operate machinery and equipment while observing all safety precautions.
AG-PST 3	Service and repair mechanical equipment and power systems used in AFNR power, structural, and technical systems.
	Student Competencies
AG-PST 3.1	Service and repair the components of internal combustion engines using procedures for trouble shooting and evaluating performance.
AG-PST 3.2	Service and repair power transmission systems following manufacturer's guidelines.
AG-PST 3.3	Service and repair hydraulic systems by evaluating performance using maintenance manuals.
AG-PST 3.4	Service and repair steering, suspension, traction, and vehicle performance systems by checking performance parameters.
AG-PST 3.5	Execute the safe and proper use of construction/fabrication hand tools in the workplace.
AG-PST 3.6	Service electrical systems by troubleshooting from schematics.

AG-PST 4	Plan, build, and maintain AFNR structures.
	Student Competencies
AG-PST 4.1	Create sketches and plans of agricultural structures.
AG-PST 4.2	Apply structural plans, specifications, and building codes.
AG-PST 4.3	Determine requirements and estimate costs for construction materials and procedures.
AG-PST 4.4	Follow architectural and mechanical plans to construct AFNR structures.
AG-PST 5	Use control, monitoring, geospatial, and other technologies in AFNR power, structural, and technical systems.
	Student Competencies
AG-PST 5.1	Execute procedures and techniques for monitoring and controlling electrical systems using basic principles of electricity.
AG-PST 5.2	Design control systems by referencing electrical drawings.
AG-PST 5.3	Use geospatial technologies in AFNR applications.

Career Ready Practices

1. Act as a Responsible and Contributing Citizen and Employee

Career-ready individuals understand the obligations and responsibilities of being a member of a community and demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them, think about the near-term and long-term consequences of their actions, and seek to act in ways that contribute to the betterment of their teams, families, community, and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

2. Apply Appropriate Academic and Technical Skills

Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications and make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.

3. Attend to Personal Health and Financial Well-Being

Career-ready individuals understand the relationship between personal health, workplace performance, and personal well-being; they act on that understanding to regularly practice health diet, exercise and mental health activities. Career-ready individuals also take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.

4. Communicate Clearly, Effectively, and with Reason

Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice and organization and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

5. Consider the environmental, social, and economic impacts of decisions

Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organizations and the environment. They are aware of and utilize new technologies, understandings, procedures, materials and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and profitability of the organization.

6. Demonstrate creativity and innovation

Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

7. Employ valid and reliable research strategies

Career-ready individuals are discerning in accepting and using new information to make decisions, change practices, or inform strategies. They use a reliable research process to search for new information and evaluate the validity of sources when considering the use and adoption of external information or practices. They use an informed process to test new ideas, information, and practices in their workplace situation.

8. Utilize critical thinking to make sense of problems and persevere in solving them

Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur, quickly take action to address the problem, thoughtfully investigate the root cause of the problem prior to introducing solutions, and carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

9. Model integrity, ethical leadership, and effective management

Career-ready individuals consistently act in ways that align to personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they apply insights into human behavior to change others' actions, attitudes, and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morale, and organizational culture.

10. Plan education and career path aligned to personal goals

Career-ready individuals take personal ownership of their own educational and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience, and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the educational and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

11. Use technology to enhance productivity

Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology, being proficient with ubiquitous technology applications. They understand the inherent risks, personal and organizational, of technology applications, and they take actions to prevent or mitigate these risks.

12. Work productively in teams while using cultural/global competence

Career-ready individuals positively contribute to every team whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.